

PRELIMINARY EXAMINATION OF EMBARRAS RIVER,
ILLINOIS.

LETTER

FROM

THE SECRETARY OF WAR,

TRANSMITTING,

With letter of the Chief of Engineers, report of a preliminary examination of the Embarras River, Illinois.

JANUARY 7, 1893.—Referred to the Committee on Rivers and Harbors and ordered to be printed.

WAR DEPARTMENT,
Washington, January 6, 1893.

SIR: I have the honor to inclose herewith a letter from the Chief of Engineers, dated January 5, 1893, together with a copy of a report from Lieut. Col. G. J. Lydecker, Corps of Engineers, dated December 22, 1892, of a preliminary examination made by him in compliance with the provisions of the river and harbor act of July 13, 1892, of the Embarras River, Illinois.

Very respectfully,

S. B. ELKINS,
Secretary of War.

The SPEAKER OF THE HOUSE OF REPRESENTATIVES.

OFFICE OF THE CHIEF OF ENGINEERS,
UNITED STATES ARMY,
Washington, D. C., January 5, 1893.

SIR: I have the honor to submit the accompanying copy of report dated December 22, 1892, by Lieut. Col. G. J. Lydecker, Corps of Engineers, of the results of a preliminary examination of Embarras River, Illinois, made to comply with the requirements of the river and harbor act approved July 13, 1892.

It is the opinion of Lieut. Col. Lydecker that this river is not worthy of improvement by the General Government, and in this opinion I concur.

Very respectfully, your obedient servant,

THOS. LINCOLN CASEY,
Brigadier-General, Chief of Engineers.

Hon. S. B. ELKINS,
Secretary of War.

PRELIMINARY EXAMINATION OF EMBARRAS RIVER, ILLINOIS.

UNITED STATES ENGINEER OFFICE,
Louisville, Ky., December 22, 1892.

GENERAL: I have the honor to submit the following report on a preliminary examination of the Embarras River, Illinois, made pursuant to instructions contained in Department letter dated July 14, 1892.

This is a small stream rising in Champaign County, Ill., flowing in a southerly direction about 180 miles and emptying into the Wabash River a short distance below Vincennes, Ind. About 15 miles above the mouth of the river is the town of Lawrenceville, at which place is located a mill dam, built some forty years ago. This section of the river, to which the examination was limited, is generally very shallow at low water, full of snags and sunken logs, crossed at one place by a barbed-wire fence, and spanned by five bridges without draws; its width is generally about 175 feet, that at the mouth being 250 feet; its low-water discharge is only 10 or 12 cubic feet per second, but at high water the stream has a rapid current and very considerable volume, the difference between high and low water being about 21 feet; the banks are generally low and at high water the stream overflows and widens out to from 1 to 11 miles. The only commerce on the stream is in the transportation of logs and lumber. Last year 1,500 logs were run out of the river at high water.

The improvement of this stream would be a matter of very considerable expense. There is at present no general commerce on it, nor is there anything to indicate that there would be any considerable amount of it if the stream should be improved. The country through which it flows is most liberally supplied with railroads, and it does not appear that there is any general demand for a river commerce. Considering the foregoing, it is my opinion that the stream is not worthy of improvement by the General Government.

I transmit herewith a blue-print sketch* of the river from its mouth to Lawrenceville, together with copy of report by O. L. Petitdidier, assistant engineer, who made the examination in person, which recites in more detail the facts on which my report is based.

Very respectfully, your obedient servant,

G. J. LYDECKER,
Lieut. Col., Corps of Engineers.

Brig. Gen. THOMAS L. CASEY,
Chief of Engineers, U. S. A.

REPORT OF MR. O. L. PETITDIDIER, ASSISTANT ENGINEER.

MOUNT CARMEL, ILL., *November 24, 1892.*

COLONEL: I have the honor to present the following report on a preliminary examination of the Embarras River, Illinois:

In compliance with your instructions I proceeded on October 25, 1892, to Lawrenceville, Ill., this being the first town above the mouth of the Embarras River, and where it was expected the most information in regard to the river might be obtained.

The Embarras River takes its rise in Champaign County and passes through Douglas, Coles, Cumberland, Jasper, Crawford, and Lawrence counties, its length being about 180 miles. The river is 250 feet wide at its mouth, and averages 175 to 200 feet wide at Lawrenceville; the discharge at low water is very small, possibly not exceeding 10 cubic feet per second at Lawrenceville, but during high water the cur-

rent is very swift, and the river overflows its banks some 4 feet, there being between high and low water a difference of about 21 feet.

There is an old milldam at Lawrenceville which prevents any communication between the upper and lower part of the river except at highest stage of water. This dam, which was built forty years ago and repaired from time to time, is now in a bad state of repair and may possibly be removed in a short time. This dam is about 200 feet long, 8 feet high, and in its present condition and at low water raises the level of pool 3 feet.

Upon inspection of this dam it was concluded that an examination of the river above Lawrenceville would be useless, as unless communication could be secured with the Wabash River, the improvement of the stream could not well come within the province of the General Government. My examination was then confined to the portion of the river between Lawrenceville and the mouth, a distance of 15 miles.

This examination was made by the aid of a rowboat. The river for the first 10 to 12 miles was found to be very shallow, often having less than 6 inches of water, full of snags and sunken logs, and on one occasion completely barred with drift, involving half an hour's work to pass through, while on many occasions wading had to be resorted to. At another place a barbed-wire fence was stretched across the river. A few rock shoals were also met with. Three miles above the mouth of the river the ruins of an old stone dam were seen. At this point a fall of 15 inches was noted. The $2\frac{1}{2}$ or 3 miles of river next to the mouth were found to be deeper and freer from snags. The river banks were often cutting and caving and everywhere comparatively low, about 16 feet in height above low water, and I was informed that at high water these were overflowed to a depth of 4 to 6 feet, the water spreading out from 1 to 11 miles in width. When starting from Lawrenceville I had provided myself with a copy of the county map, showing the river, but after losing sight of town it became impossible to recognize one's surroundings, as the river is certainly much more tortuous than is shown by the map. Two bridges at Lawrenceville and three bridges between Lawrenceville and the mouth were found, all of which were unprovided with draws. These bridges are shown on the accompanying map.

Commerce.—The commerce between Lawrenceville and the mouth of the river consists only of rafts of logs which go out at high water. 1,500 logs went out last year. The Wabash River boats never come up to Lawrenceville for the reason that when the water is high they can not pass under the bridges.

The commerce above Lawrenceville is, however, considerable, but it is all done in the interest of one or two sawmills owned by the H. G. Fink Manufacturing Company. This firm has constructed a small steamboat and a barge, which they operate between the dam at Lawrenceville and points above, and bring down rafts of logs and sawed lumber from their upper mill when stage of water is suitable. The lumber is thence shipped by rail to Chicago, St. Louis, Indianapolis, and even to England.

Mr. Ward, the manager at Lawrenceville for H. G. Fink & Co., informed me that they can run their boat six months every year. 8,000,000 staves and 3,000,000 feet of lumber were handled by this firm last year.

In concluding my report I would say that, in my opinion, this river is not worthy of improvement by the General Government for the following reasons:

(1) The presence of five bridges unprovided with draws within a distance of 15 miles from mouth of river.

(2) The presence of a dam at Lawrenceville.

(3) Very small discharge at low water, thus necessitating a project of slack-water navigation in order to obtain improvement.

(4) Great expense not only of slack-water navigation, but also to provide the existing bridges with draws and for payment for submerged lands.

(5) The prospective commerce on the portion of the river improved would not, in my opinion, and that of others who have been interviewed, be increased.

As well as I could ascertain there is no demand for improvement of the river below Lawrenceville.

Improvement of the river above that point would undoubtedly be of local benefit, but this has not been considered.

Very respectfully submitted.

Your obedient servant,

O. L. PETTIDIER,
Assistant Engineer.

Lt. Col. G. J. LYDECKER,
Corps of Engineers.

